

CLAIMS

- 1    1    A system comprising:
- 2                 a processor with an adjustable supply voltage;
- 3                 at least one temperature sensor, coupled to the processor to sense a temperature of the
- 4                 processor;
- 5                 the system to adjust the processor's supply voltage to an acceptably low supply voltage
- 6                 based at least in part on the processor's sensed temperature and a sensed clock frequency
- 7                 of the processor; and
- 8                 a flash memory to store a plurality of the acceptably low supply voltages for the
- 9                 processor based at least in part on the processor's sensed clock frequency and the
- 10                 processor's sensed temperature
- 1    2.    The system of claim 1 wherein the system is coupled to a power source integrated with a  
2                 power controller.
- 1    3.    The system of claim 1 wherein the temperature sensor is integrated with the processor.
- 1    4.    The system of claim 1 wherein the temperature sensor is attached to a ceramic package of  
2                 the processor.
- 1    5. The system of claim 1 wherein the temperature sensor is located within zero to seven centimeters  
2                 of the processor.

1      7. An article comprising:

2            a storage medium having stored thereon instructions, that, when executed by a computing

3            platform, result in execution of adjusting a supply voltage to a system's processor by:

4                sensing the system processor's temperature;

5                storing a plurality of acceptably low supply voltages based at least in part on the processor's

6                sensed temperature and the processor's sensed clock frequency; and

7                generating a command to adjust the system's supply voltage to approximately the acceptably

8                low supply voltage.

8. The article of claim 7, wherein said storing the plurality of acceptably low supply voltages comprises writing the acceptably low supply voltage to a flash memory.

9. The article of claim 7, wherein said generating a command comprises transmitting the command from the system processor to a power source.

1 10. The article of claim 7, wherein said generating a command comprises transmitting the  
2 command from a power controller to a power source.

1 11. The article of claim 7, wherein the system comprises at least one of a personal digital  
2 assistant, a cell phone, an Internet tablet, or a personal computer.

1       12. A method of adjusting a voltage level to a processor comprising:  
2           sensing a temperature and a clock frequency of the processor;  
3           comparing the processor's sensed temperature and the processor's clock frequency to a  
4           table of data of an acceptably low voltage level for a plurality of processor's sensed  
5           temperatures and processor's sensed clock frequencies; and  
6           adjusting the voltage level of the processor to the acceptably low voltage level based at  
7           least in part on the processor's sensed temperature and the processor's sensed clock  
8           frequenc

1       13. The method of claim 12 further comprising storing the table of data in a flash memory.

1       14. The method of claim 12 wherein adjusting the voltage level comprises generating a set  
2           voltage command.

1       15. The method of claim 14 wherein generating the set voltage command comprises  
2           transmitting the set voltage command to a power source.